

AMENDMENTS TO THE CLAIMS:

This listing of the claims replaces all prior versions and listing of the claims in the present application.

Listing of Claims:

1. (currently amended) An internet protocol address assignment system comprising a subscriber terminal, a subscriber exchange, a remote access server, an authentication server and a resource control server, the remote access server being connected to the subscriber exchange using a network node interface, an internet protocol address being assigned to the subscriber terminal using the authentication server and the resource control server,

wherein the remote access server receives a call from the subscriber terminal via the subscriber exchange, permits the resource control server to reserve the internet protocol address during an initial exchange of an initial address message and an address complete message between the subscriber terminal and remote access server before authentication of the subscriber terminal on the basis of information whether or not there is any internet protocol address to be assigned to the subscriber terminal, and assigns the internet protocol address reserved in the resource control server to the subscriber terminal when the subscriber terminal is later authenticated.

2. (previously presented) The internet protocol address assignment system claimed in claim 1, wherein when there is the internet protocol address to be assigned to the subscriber terminal, the resource control server reserves the internet protocol address before authentication of the subscriber terminal, and the remote access server assigns the internet protocol address reserved in the resource control server to the subscriber terminal when the subscriber terminal is later authenticated by the authentication server.

3. (previously presented) The internet protocol address assignment system claimed in claim 1, wherein when there is no internet protocol address to be assigned to the subscriber terminal, the resource control server cannot reserve the internet protocol address, and the remote access server permits the subscriber exchange to release the line before authentication of the subscriber terminal.

4. (currently amended) An internet protocol address assignment system comprising a subscriber terminal, a subscriber exchange, a remote access server and an authentication and resource control server, the remote access server being connected to the subscriber exchange using a network node interface, an internet protocol address being assigned to the subscriber terminal using the authentication and resource control server, wherein

the remote access server receives a call from the subscriber terminal via the subscriber exchange, permits the authentication and resource control server to reserve the internet protocol address during an initial exchange of an initial address message and an address complete message between the subscriber terminal and remote access server before authentication of the subscriber terminal on the basis of information whether or not there is any internet protocol address to be assigned to the subscriber terminal and to execute authentication, and assigns the internet protocol address reserved in the authentication and resource control server to the subscriber terminal when the subscriber terminal is later authenticated.

5. (previously presented) The internet protocol address assignment system claimed in claim 4, wherein when there is the internet protocol address to be assigned to the subscriber terminal, the authentication and resource control server reserves the internet protocol address before authentication of the subscriber terminal, and the remote access server assigns the internet protocol address reserved in the authentication and resource control server to the subscriber terminal when the subscriber terminal is authenticated by the authentication and resource control server.

6. (previously presented) The internet protocol address assignment system claimed in claim 4, wherein when there is no

internet protocol address to be assigned to the subscriber terminal, the authentication and resource control server cannot reserve the internet protocol address, and the remote access server permits the subscriber exchange to release the line before authentication of the subscriber terminal.

7. (original) The internet protocol address assignment system claimed in claim 1, wherein the authentication server executes the authentication on the basis of a sender number of the subscriber terminal.

8. (original) The internet protocol address assignment system claimed in claim 2, wherein the authentication server executes the authentication on the basis of a sender number of the subscriber terminal.

9. (original) The internet protocol address assignment system claimed in claim 3, wherein the authentication server executes the authentication on the basis of a sender number of the subscriber terminal.

10. (original) The internet protocol address assignment system claimed in claim 4, wherein the authentication and resource control server executes the authentication on the basis of a sender number of the subscriber terminal.

11. (original) The internet protocol address assignment system claimed in claim 5, wherein the authentication and resource control server executes the authentication on the basis of a sender number of the subscriber terminal.

12. (original) The internet protocol address assignment system claimed in claim 6, wherein the authentication and resource control server executes the authentication on the basis of a sender number of the subscriber terminal.

13. (original) The internet protocol address assignment system claimed in claim 1, wherein the remote access server is connected to the subscriber exchange via a public switched telephone network and a signalling system number 7 signal network.

14. (original) The internet protocol address assignment system claimed in claim 2, wherein the remote access server is connected to the subscriber exchange via a public switched telephone network and a signalling system number 7 signal network.

15. (original) The internet protocol address assignment system claimed in claim 3, wherein the remote access server is connected to the subscriber exchange via a public switched telephone network and a signalling system number 7 signal network.

16. (original) The internet protocol address assignment system claimed in claim 4, wherein the remote access server is connected to the subscriber exchange via a public switched telephone network and a signalling system number 7 signal network.

17. (original) The internet protocol address assignment system claimed in claim 5 , wherein the remote access server is connected to the subscriber exchange via a public switched telephone network and a signalling system number 7 signal network.

18. (original) An internet protocol address assignment system claimed in claim 6, wherein the remote access server is connected to the subscriber exchange via a public switched telephone network and a signalling system number 7 signal network.

19. (original) The internet protocol address assignment system claimed in claim 7, wherein the remote access server is connected to the subscriber exchange via a public switched telephone network and a signalling system number 7 signal network.

20. (currently amended) A processing method of an internet protocol address assignment system comprising a subscriber terminal, a subscriber exchange, a remote access server, an authentication server and a resource control server, the remote access server being connected to the subscriber exchange using a network node interface, an internet protocol address being assigned to the subscriber terminal using the authentication server and the resource control server, comprising the steps, in order, of:

calling from the subscriber terminal to the subscriber exchange;

notifying the remote access server of the call from the subscriber terminal to the subscriber exchange;

exchanging an initial address message and an address complete message between the subscriber terminal and remote access server, and during this exchange confirming whether or not there is any internet protocol address to be assigned to the subscriber terminal by the resource control server[[]] and reserving the internet protocol address to be assigned to the subscriber terminal in the resource control server on the basis of the confirmation result of the resource control server;

notifying the remote access server whether or not the resource control server reserves the internet protocol address to be assigned to the subscriber terminal;

authenticating the subscriber terminal by the authentication server;

notifying the remote access server of the authentication result of the authentication server; and

assigning the internet protocol address reserved in the resource control server to the subscriber terminal when the subscriber terminal is authenticated by the authentication server.

21. (previously presented) The processing method claimed in claim 20, wherein when there is the internet protocol

address to be assigned to the subscriber terminal, the resource control server reserves the internet protocol address before authentication of the subscriber terminal, and the remote access server assigns the internet protocol address reserved in the resource control server to the subscriber terminal when the subscriber terminal is later authenticated by the authentication server.

22. (previously presented) The processing method claimed in claim 20, wherein when there is no internet protocol address to be assigned to the subscriber terminal, the resource control server notifies the remote access server that the resource control server cannot reserve the internet protocol address, and the remote access server permits the subscriber exchange to release the line before authentication of the subscriber terminal.

23. (currently amended) A processing method of an internet protocol address assignment system comprising a subscriber terminal, a subscriber exchange, a remote access server and an authentication and resource control server, the remote access server being connected to the subscriber exchange using a network node interface, an internet protocol address being assigned to the subscriber terminal using the authentication and resource control server, comprising the steps, in order, of:



calling from the subscriber terminal to the subscriber exchange;

notifying the remote access server of the call from the subscriber terminal to the subscriber exchange;

exchanging an initial address message and an address complete message between the subscriber terminal and remote access server, and during this exchange confirming whether or not there is any internet protocol address to be assigned to the subscriber terminal by the authentication and resource control server[[;]] and reserving the internet protocol address to be assigned to the subscriber terminal in the authentication and resource control server on the basis of the confirmation result of the authentication and resource control server;

notifying the remote access server whether or not the authentication and resource control server reserves the internet protocol address to be assigned to the subscriber terminal;

authenticating the subscriber terminal by the authentication and resource control server;

notifying the remote access server of the authentication result of the authentication and resource control server; and

assigning the internet protocol address reserved in the authentication and resource control server to the subscriber terminal when the subscriber terminal is authenticated by the authentication and resource control server.

24. (previously presented) The processing method claimed in claim 23, wherein when there is the internet protocol address to be assigned to the subscriber terminal, the authentication and resource control server reserves the internet protocol address before authentication of the subscriber terminal, and the remote access server assigns the internet protocol address reserved in the authentication and resource control server to the subscriber terminal when the subscriber terminal is later authenticated by the authentication and resource control server.

25. (previously presented) The processing method claimed in claim 23, wherein when there is no internet protocol address to be assigned to the subscriber terminal, the authentication and resource control server notifies the remote access server that the authentication and resource control server cannot reserve the internet protocol address, and the remote access server permits the subscriber exchange to release the line before authentication of the subscriber terminal.

26. (original) The processing method claimed in claim 20, wherein the authentication server executes the authentication on the basis of a sender number of the subscriber terminal.

27. (original) The processing method claimed in claim 21, wherein the authentication server executes the authentication on the basis of a sender number of the subscriber terminal.

28. (original) The processing method claimed in claim 22, wherein the authentication server executes the authentication on the basis of a sender number of the subscriber terminal.

29. (original) The processing method claimed in claim 23, wherein the authentication and resource control server executes the authentication on the basis of a sender number of the subscriber terminal.

30. (original) The processing method claimed in claim 24, wherein the authentication and resource control server executes the authentication on the basis of a sender number of the subscriber terminal.

31. (original) The processing method claimed in claim 25, wherein the authentication and resource control server executes the authentication on the basis of a sender number of the subscriber terminal.

32. (original) The processing method of claim 20, wherein the remote access server is connected to the subscriber exchange via a public switched telephone network and a signalling system number 7 signal network.

33. (original) The processing method of claim 21, wherein the remote access server is connected to the subscriber exchange via a public switched telephone network and a signalling system number 7 signal network.

34. (original) The processing method of claim 22, wherein the remote access server is connected to the subscriber

exchange via a public switched telephone network and a signalling system number 7 signal network.

35. (original) The processing method of claim 23, wherein the remote access server is connected to the subscriber exchange via a public switched telephone network and a signalling system number 7 signal network.

36. (original) The processing method of claim 24, wherein the remote access server is connected to the subscriber exchange via a public switched telephone network and a signalling system number 7 signal network.

37. (original) The processing method of claim 25, wherein the remote access server is connected to the subscriber exchange via a public switched telephone network and a signalling system number 7 signal network.

38. (original) The processing method of claim 26, wherein the remote access server is connected to the subscriber exchange via a public switched telephone network and a signalling system number 7 signal network.